



Air Force Research Laboratory | AFRL

Science and Technology for Tomorrow's Aerospace Forces

Success Story

EMERGING TECHNOLOGY SAVES TIME AND MONEY TRANSPORTING USERS INTO "THE WORLD OF OZ"



An object management system called Object Czar® (referred to as Oz) reduced project management task support time by 30% during validation. Used in a Virtual Manufacturing Enterprise (VME), Oz reduces parts acquisition costs by up to 70%, decreases logistics response times by more than 50%, and increases the supplier chain to more than 170 companies. This increases user flexibility; provides timely performance, visibility and global data accessibility; and reduces the learning curve as well as application design, development, and implementation costs. Design of this tool allows it to operate in a Common Object Request Broker Architecture (CORBA), NT®, or Windows environment with user-friendly Microsoft® products such as Excel, Word, and PowerPoint.



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Accomplishment

Under a contract with the Materials and Manufacturing Directorate, researchers at Knowledge Base Engineering (KBE), Inc., developed Oz. Oz has proven in a global environment that it can link data spread across a wide range of computers, networks, databases, and computer-based application tools. Air Force engineers and project managers using Oz find that it shortens the cycle time for the procurement of new technology and enhances program stability.

Background

Developed under an Air Force-sponsored Small Business Technology Transfer contract, Oz is a secure environment that provides point-and-click capabilities to create and maintain end-user production applications. With Oz, project team members and administrative personnel can obtain different privileges and work in a secure environment.

The Oz-Integrated Program Management is a tool for engineers and scientists to manage work flow and projects. As various team members or contributors provide input, Oz automatically generates charts, reports, and graphs in both text and graphics. Oz provides immediate access to mission critical data, allows managers and project team members to maintain their shared data, automatically creates case files, and supports records managers.

Oz can incorporate Microsoft® office capabilities automatically. The manufacturer leverages the KBE-developed universal object-oriented scheme that has a similar structure to the Windows® Explorer hierarchical version for Oz applications.

Oz uses CORBA and Open Database Connectivity to communicate with local and remote databases such as Microsoft® Access and SQL Server, Oracle®, and Borland® InterBase®. KBE provides an Oz multitiered distributed application server with a powerful application programming interface, both of which are state-of-the-art in the computer industry.

Team members used Oz to successfully integrate and manage a VME, a coalition that began with more than 100 small, high technology manufacturing organizations throughout the United States. Each small manufacturing operation performs a specialized role in the VME process in order to deliver a quality product at a reduced cost to the government.

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTT, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (01-ML-12)